

**Amendments to the Specification**

Please replace the paragraph at page 22, line 23 through page 23 line 4, with the following amended paragraph:

In one embodiment, a porous metal layer intermetallic diffusion barrier includes palladium or an alloy thereof and a Group IB metal, such as copper or silver, or an alloy thereof. For example, the intermetallic diffusion barrier can include alternating porous layers of palladium and a Group IB metal or alloys thereof. Methods for fabricating composite gas separation modules that include intermetallic diffusion barriers are further discussed in U.S. Provisional Patent Application No. 60/457,061, entitled "Method of Making Intermetallic Diffusion Barrier," by Ma, *et al.*, filed on March 21, 2003, and in U.S. Patent Application No. 10/804,846, entitled "Composite Gas Separation Modules Having Intermediate Porous Metal Layers," by Ma, *et al.*, filed on ~~even date herewith~~ March 19, 2004 under Attorney Docket No. 1021.2005-001, each incorporated by reference herein in their entirety.

Please replace the paragraph at page 28, line 15-20, with the following amended paragraph:

Methods for fabricating composite gas separation modules that include abrading a deposited material are further discussed in U.S. Provisional Patent Application No. 60/456,930, entitled "Method for Producing Dense Selective Layers," by Ma, *et al.*, filed on March 21, 2003, and in U.S. Patent Application No.: 10/804,847, entitled "Method for Fabricating Composite Gas Separation Modules," by Ma, *et al.*, filed on ~~even date herewith~~ March 19, 2004 under Attorney Docket No. 1021.2006-001, each incorporated by reference herein in their entirety.

Please replace the paragraph at page 29, line 16 -28, with the following amended paragraph:

Composite gas separation modules and methods for their fabrication suitable for use in conjunction with the present invention are described in U.S. Patent No. 6,152,987, cited *supra*, and also in U.S. Provisional Patent Application No. 60/456,931, entitled "Method of Producing Thin Palladium and Palladium Alloy Layers," by Ma, *et al.*, filed on March 21, 2003; U.S. Provisional Patent Application No. 60/457,061, cited *supra*; U.S. Provisional Patent Application No. 60/456,930, cited *supra*; U.S. Provisional Patent Application No. 60/467,493, entitled "High Melting Point Metal Diffusion Barriers for Composite Palladium

Porous Stainless Steel Membranes," by Ma, *et al.*, filed on May 2, 2003; U.S. Patent Application No. 10/804,846, entitled "Composite Gas Separation Modules Having Intermediate Porous Metal Layers," by Ma, *et al.*, cited *supra*; and U.S. Patent Application No. 10/804,847, entitled "Method for Fabricating Composite Gas Separation Modules," by Ma, *et al.*, cited *supra*, each of which is incorporated herein by reference in its entirety.